

## **LISTING OF THE CLAIMS**

The following listing, if entered, replaces all prior versions of the claims in the present application.

1.     **(Currently Amended)** A method comprising:  
receiving a packet, the packet comprising a multicast destination address; and  
sending a copy of the packet to a virtual network device sub-unit via a virtual  
network device link, wherein  
the virtual network device link couples two virtual network device sub-  
units, and wherein the two virtual network device sub-units are  
configured to operate as a single virtual network device; **and**  
**the sending comprises sending at most one copy of the packet via the**  
**virtual network device link.**
2.     **(Cancelled)**
3.     **(Currently Amended)** The method of claim **[[2]] 1**, further comprising:  
receiving a second packet via the virtual network device link, the second packet  
comprising a second multicast destination address; and  
replicating the second packet for each of a plurality of outgoing VLANs (Virtual  
Local Area Networks) associated with the second multicast destination  
address.
4.     **(Original)** The method of claim 3, further comprising:  
sending at least one copy of the second packet to each line card that includes an  
interface associated with one of the outgoing VLANs.
5.     **(Original)** The method of claim 3, further comprising:  
sending at least one copy of the second packet to each line card that includes an  
interface associated with an incoming VLAN, wherein  
the second packet is being conveyed in the incoming VLAN.

6. (Original) The method of claim 3, further comprising:  
sending at most one copy of the second packet to each line card that includes an  
interface associated with one of the outgoing VLANs.
7. (Original) The method of claim 3, further comprising:  
not sending any copy of the second packet via an uplink interface coupled to a  
virtual network device bundle.
8. **(Currently Amended)** The method of claim ~~[[2]]~~ 1, further comprising:  
receiving a third packet via the virtual network device link, the third packet  
comprising a unicast destination address; and  
performing an egress lookup for the third packet in response to the receiving the  
third packet.
9. (Original) The method of claim 8, wherein  
a header associated with the third packet is also received via the virtual network  
device link,  
the header comprises a destination identifier.
10. (Original) The method of claim 9, further comprising:  
sending the third packet and the header to another line card if a non-primary entry  
corresponding to the unicast destination address is found during the egress  
lookup.
11. (Original) The method of claim 9, further comprising:  
if a primary entry corresponding to the unicast destination address is found during  
the egress lookup:  
sending the third packet from an interface identified by the primary entry.

12. (Original) The method of claim 11, further comprising:  
sending a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein  
the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.
13. **(Currently Amended)** A method, comprising:  
receiving a packet via a virtual network device link, the packet comprising a unicast destination address, wherein  
the virtual network device link couples two virtual network device sub-units, and wherein the two virtual network device sub-units are configured to operate as a single virtual network device; and  
performing an egress lookup for the packet in response to the receiving the packet, **wherein**  
**the performing the egress lookup comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table.**
14. (Original) The method of claim 13, wherein  
a header associated with the packet is also received via the virtual network device link,  
the header comprises a destination identifier.
15. (Original) The method of claim 14, further comprising:  
sending the packet and the header to another line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.
16. (Original) The method of claim 14, further comprising:  
if a primary entry corresponding to the unicast destination address is found during the egress lookup:

sending the packet from an interface identified by the primary entry.

17. (Original) The method of claim 16, further comprising:  
sending a notification via the virtual network device link if the destination  
identifier comprised in the header does not match a destination identifier  
comprised in the primary entry, wherein  
the notification identifies the unicast destination address as corresponding  
to the destination identifier comprised in the primary entry.

18. (Original) The method of claim 16, wherein  
the packet is only sent from the interface if the interface is not comprised in an  
uplink interface bundle.

19. (Previously Presented) The method of claim 13, further comprising:  
receiving a second packet, the second packet comprising a multicast destination  
address; and  
sending at most one copy of the second packet to one of the two virtual network  
device sub-units via the virtual network device link.

20. (Original) The method of claim 19, further comprising:  
receiving a third packet via the virtual network device link, the third packet  
comprising a second multicast destination address; and  
replicating the third packet for each of a plurality of outgoing VLANs (Virtual  
Local Area Networks) associated with the second multicast destination  
address.

21. (Original) The method of claim 20, further comprising:  
sending at least one copy of the third packet to each line card that includes an  
interface associated with one of the outgoing VLANs.

22. (Original) The method of claim 20, further comprising:

sending at least one copy of the third packet to each line card that includes an interface associated with an incoming VLAN, wherein the third packet is being conveyed in the incoming VLAN.

23. (Original) The method of claim 20, further comprising:  
sending at most one copy of the third packet to each line card that includes an interface associated with one of the outgoing VLANs.

24. **(Currently Amended)** A method comprising:  
receiving a packet via a virtual network device link;  
performing one of an ingress lookup and an egress lookup for the packet,  
wherein  
the ingress lookup is performed for the packet if the packet  
includes a multicast destination address;  
the egress lookup is performed for the packet if the packet includes  
a unicast destination address, **wherein**  
**the performing the egress lookup comprises allocating a**  
**non-primary entry corresponding to a source**  
**address of the packet in the lookup table;** and  
a primary lookup table entry can be allocated in response to an  
ingress lookup but not in response to an egress lookup.

25. (Original) The method of claim 24, wherein  
the packet includes a multicast destination address, and  
the method further comprises:

replicating the packet for each of a plurality of outgoing VLANs  
associated with the multicast destination address.

26. (Original) The method of claim 25, further comprising:  
sending at least one copy of the packet to each line card that includes an interface  
associated with one of the outgoing VLANs.

27. (Original) The method of claim 25, further comprising:  
sending at most one copy of the packet to each line card that includes an interface  
associated with one of the outgoing VLANs.
28. (Original) The method of claim 25, further comprising:  
not sending any copy of the packet via the virtual network device link.
29. (Original) The method of claim 25, further comprising:  
not sending any copy of the packet via an uplink interface comprised in a uplink  
interface bundle.
30. (Original) The method of claim 24, wherein  
a header associated with the packet is also received via the virtual network device  
link,  
the header comprises a destination identifier, and  
the packet comprises the unicast destination address, and  
the method further comprises:  
    sending the packet and the header to another line card if a non-primary  
    entry corresponding to the unicast destination address is found  
    during the egress lookup.
31. (Original) The method of claim 30, further comprising:  
if a primary entry corresponding to the unicast destination address is found during  
the egress lookup:  
    sending the packet from an interface identified by the primary entry.
32. (Original) The method of claim 30, further comprising:  
    sending a notification via the virtual network device link if a destination identifier  
comprised in the header does not match a destination identifier comprised in the primary  
entry, wherein  
    the notification identifies the unicast destination address as corresponding to the  
    destination identifier comprised in the primary entry.

33. (Original) The method of claim 30, wherein the packet is only sent from the interface if the interface is not comprised in a uplink interface bundle.
34. **(Currently Amended)** A system comprising:  
an interface to a virtual network device link, wherein  
the interface is configured to receive a packet,  
the virtual network device link couples two virtual network device sub-units, and  
the two virtual network device sub-units are configured to operate as a single virtual network device; and  
a distributed forwarding module coupled to the interface, wherein  
the distributed forwarding module is configured to forward the packet,  
**the distributed forwarding module is configured to perform an ingress lookup for the packet if the packet includes a multicast destination address, and**  
**the distributed forwarding module is configured to perform an egress lookup for the packet if the packet includes a unicast destination address.**
35. **(Cancelled)**
36. (Original) The system of claim 34, wherein the packet includes a multicast destination address, and the distributed forwarding module is configured to replicate the packet for each of a plurality of outgoing VLANs associated with the multicast destination address.
37. **(Currently Amended)** The system of claim ~~[[35]]~~ **34**, further comprising:  
one of more line cards, wherein

the distributed forwarding module is configured to send at least one copy of the packet to each of the one or more line cards that includes an interface associated with one of the outgoing VLANs.

38. **(Currently Amended)** The system of claim ~~[[35]]~~ 34, further comprising:

one or more line cards, wherein  
the distributed forwarding module is configured to send at most one copy of the packet to each line card that includes an interface associated with one of the outgoing VLANs.

39. **(Currently Amended)** The system of claim ~~[[35]]~~ 34, further comprising:

a second interface configured to receive a second packet, wherein  
the second packet comprises a second multicast address, and  
the distributed forwarding module is configured to send at most one copy of the second packet via the virtual network device link.

40. **(Original)** The system of claim 34, wherein  
a header associated with the packet is also received via the virtual network device link,  
the header comprises a destination identifier, and  
the packet comprises the unicast destination address, and  
the distributed forwarding module is configured to send the packet and the header to another line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.

41. **(Original)** The system of claim 40, further comprising:  
a second interface, wherein  
the distributed forwarding module is configured to send the packet from the second interface if a primary entry corresponding to the unicast



destination address is found during the egress lookup and if the primary entry identifies the second interface.

42. (Original) The system of claim 40, wherein the distributed forwarding module is configured to send a notification via the virtual network device link if a destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, and the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.
43. **(Currently Amended)** A system comprising:  
means for receiving a packet, the packet comprising a multicast destination address; and  
means for sending a copy of the packet to a virtual network device sub-unit via a virtual network device link, wherein the virtual network device link couples two virtual network device sub-units, and wherein the two virtual network device sub-units are configured to operate as a single virtual network device, **and the means for sending comprises sending at most one copy of the packet via the virtual network device link.**
44. **(Cancelled)**
45. **(Currently Amended)** The system of claim ~~[[44]]~~ **43**, further comprising:  
means for receiving a second packet via the virtual network device link, the second packet comprising a second multicast destination address; and  
means for replicating the second packet for each of a plurality of outgoing VLANs (Virtual Local Area Networks) associated with the second multicast destination address.

46. (Original) The system of claim 45, further comprising:  
means for sending at least one copy of the second packet to each line card that  
includes an interface associated with one of the outgoing VLANs.
47. (Original) The system of claim 45, further comprising:  
means for sending at least one copy of the second packet to each line card that  
includes an interface associated with an incoming VLAN, wherein  
the second packet is being conveyed in the incoming VLAN.
48. (Original) The system of claim 45, further comprising:  
means for sending at most one copy of the second packet to each line card that  
includes an interface associated with one of the outgoing VLANs.
49. **(Currently Amended)** The system of claim ~~[[44]]~~ **43**, further  
comprising:  
means for receiving a third packet via the virtual network device link, the third  
packet comprising a unicast destination address; and  
means for performing an egress lookup for the third packet in response to the  
receiving the third packet.
50. **(Currently Amended)** A system comprising:  
means for receiving a packet via a virtual network device link, the packet  
comprising a unicast destination address, wherein  
the virtual network device link couples two virtual network device sub-  
units, and wherein the two virtual network device sub-units are  
configured to operate as a single virtual network device; and  
means for performing an egress lookup for the packet, **wherein**  
**the means for performing the egress lookup comprises means for**  
**allocating a non-primary entry corresponding to a source**  
**address of the packet in the lookup table.**
51. (Original) The system of claim 50, wherein

a header associated with the packet is also received via the virtual network device link,  
the header comprises a destination identifier obtained by performing an ingress lookup for the packet.

52. (Original) The system of claim 51, further comprising:  
means for sending the packet and the header to another line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.

53. (Original) The system of claim 51, further comprising:  
means for sending the packet from an interface identified by a primary entry, if the primary entry corresponding to the unicast destination address is found during the egress lookup.

54. (Original) The system of claim 53, further comprising:  
means for sending a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein  
the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.

55. (Original) The system of claim 53, wherein  
the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.

56. (Previously Presented) The system of claim 51, further comprising:  
means for receiving a second packet, the second packet comprising a multicast destination address; and  
means for sending at most one copy of the second packet to one of the two virtual network device sub-units via the virtual network device link.

57. (Currently Amended) A computer readable medium storing a program, the program comprising program instructions executable to:

detect reception of a packet, the packet comprising a multicast destination address; and

send a copy of the packet to a virtual network device sub-unit via a virtual network device link, wherein

the virtual network device link couples two virtual network device sub-units, and wherein the two virtual network device sub-units are configured to operate as a single virtual network device, **and sending comprises sending at most one copy of the packet via the virtual network device link.**

58. (Cancelled)

59. (Currently Amended) The computer readable medium of claim **[[58]]** **57**, wherein the program instructions are further executable to:

detect reception of a second packet via the virtual network device link, the second packet comprising a second multicast destination address; and

replicate the second packet for each of a plurality of outgoing VLANs (Virtual Local Area Networks) associated with the second multicast destination address.

60. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:

send at least one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.

61. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:

send at least one copy of the second packet to each line card that includes an interface associated with an incoming VLAN, wherein the second packet is being conveyed in the incoming VLAN.

62. (Original) The computer readable medium of claim 59, wherein the program instructions are further executable to:
- send at most one copy of the second packet to each line card that includes an interface associated with one of the outgoing VLANs.
63. (Original) The computer readable medium of claim 58, wherein the program instructions are further executable to:
- detect reception of a third packet via the virtual network device link, the third packet comprising a unicast destination address; and
  - perform an egress lookup for the third packet in response to the receiving the third packet.
64. **(Currently Amended)** A computer readable medium storing a program, the program comprising program instructions executable to:
- detect reception of a packet via a virtual network device link, the packet comprising a unicast destination address, wherein the virtual network device link couples two virtual network device sub-units, and wherein the two virtual network device sub-units are configured to operate as a single virtual network device; and
  - perform an egress lookup for the packet, **wherein performing the egress lookup comprises allocating a non-primary entry corresponding to a source address of the packet in the lookup table.**
65. (Original) The computer readable medium of claim 64, wherein a header associated with the packet is also received via the virtual network device link,
- the header comprises a destination identifier.
66. (Original) The computer readable medium of claim 65, wherein the program instructions are further executable to:

send the packet and the header to another line card if a non-primary entry corresponding to the unicast destination address is found during the egress lookup.

67. (Original) The computer readable medium of claim 65, wherein the program instructions are further executable to:

send the packet from an interface identified by a primary entry, if the primary entry corresponding to the unicast destination address is found during the egress lookup.

68. (Original) The computer readable medium of claim 67, wherein the program instructions are further executable to:

send a notification via the virtual network device link if the destination identifier comprised in the header does not match a destination identifier comprised in the primary entry, wherein the notification identifies the unicast destination address as corresponding to the destination identifier comprised in the primary entry.

69. (Original) The computer readable medium of claim 67, wherein the packet is only sent from the interface if the interface is not comprised in an uplink interface bundle.

70. (Original) The computer readable medium of claim 65, wherein the program instructions are further executable to:

detect reception of a second packet, the second packet comprising a multicast destination address; and  
send at most one copy of the second packet to a virtual network device sub-unit via a virtual network device link, the virtual network device sub-unit comprised in a virtual network device.